

N85-32406

# POLYMERIZABLE ULTRAVIOLET STABILIZERS

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## Objectives

### A: SYNTHESIS OF POLYMERIZABLE UV MONOMERS (BENZOTRIAZOLES)

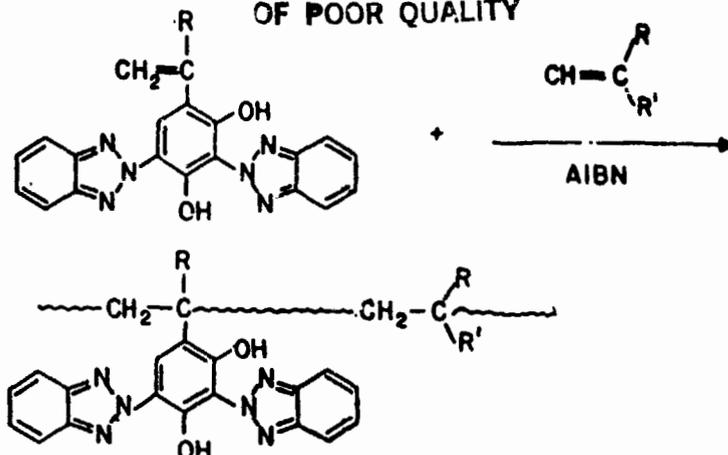
- VINYL AND ISOPROPENYL DERIVATIVES OF  
DIBENZOTRIAZOLE SUBSTITUTED RESORCINOL  
AND PHLOROGLUCINOL.
- MONO- AND DIMETHOXY AND HYDROXYBENZOTRIA-  
ZOLE DERIVATIVES OF RESORCINOL AND  
PHLOROGLUCINOL.
- CARBOXY, CARBOMETHOXY AND ACETOXY  
SUBSTITUTED DERIVATIVES OF RESORCINOL.

### B: INCORPORATION OF POLYMERIZABLE UV STABILIZERS (BENZOTRIAZOLES) INTO POLYMERS.

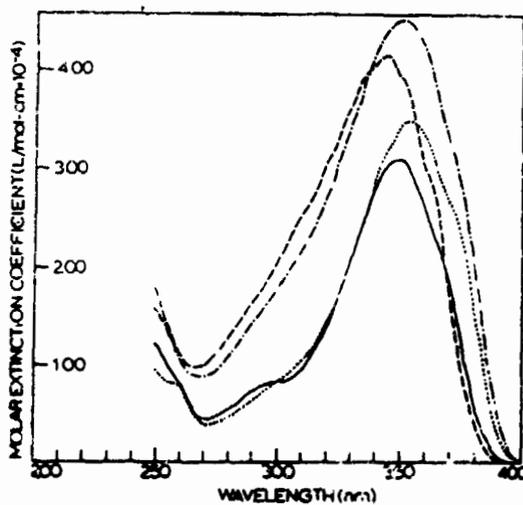
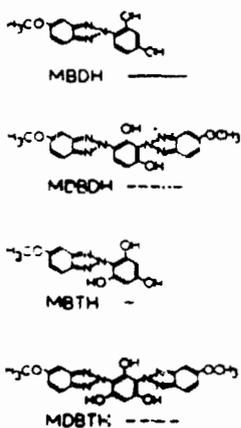
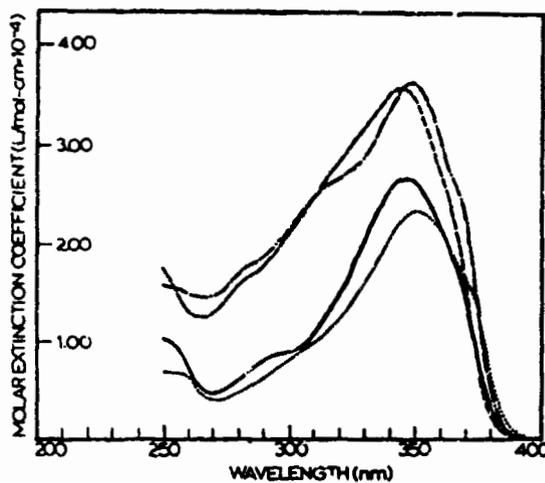
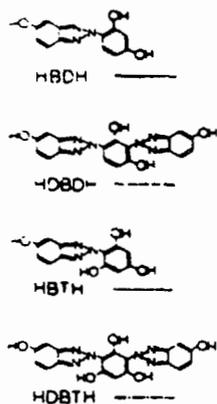
- ADDITION POLYMERS - STYRENES, ACRYLICS
- CONDENSATION POLYMERS - POLYESTERS,  
POLYCARBONATES,  
POLYURETHANES,  
POLYAMIDES  
EPOXIES.

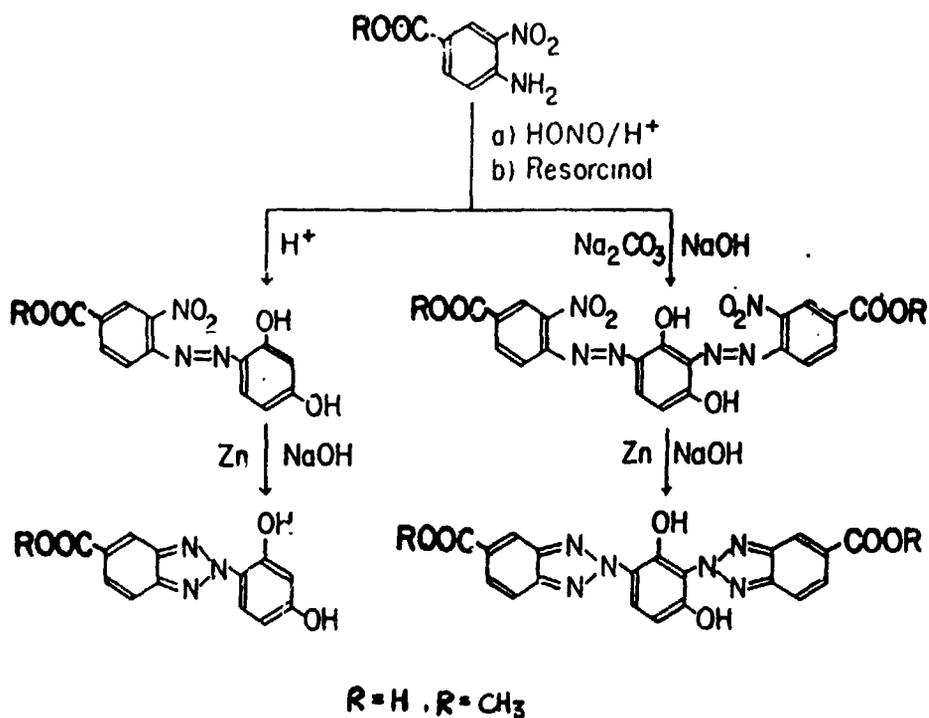
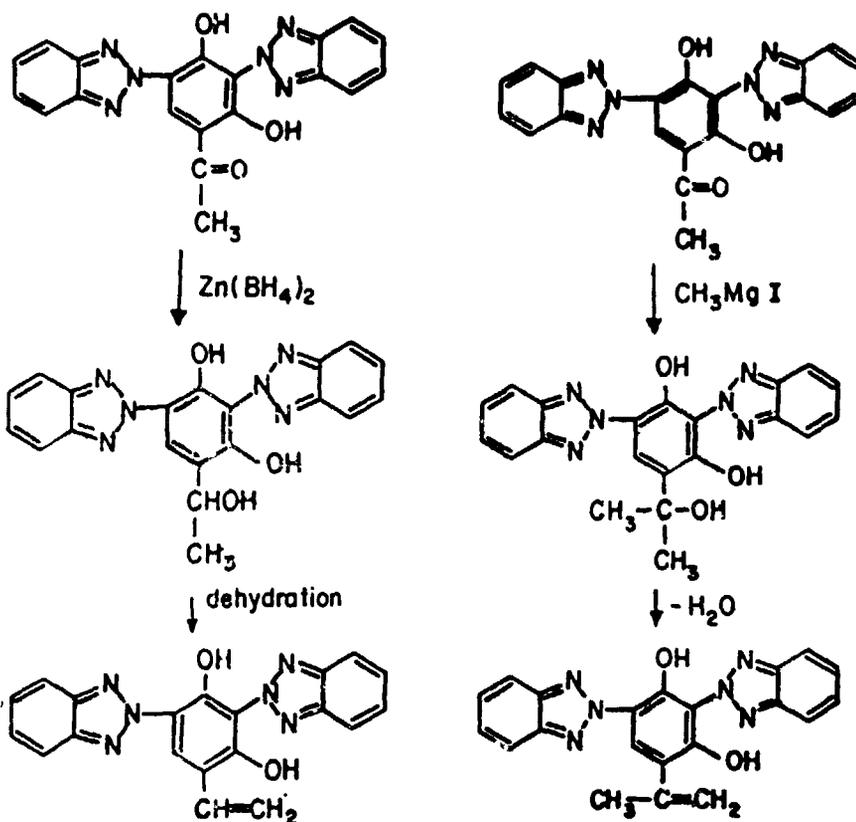
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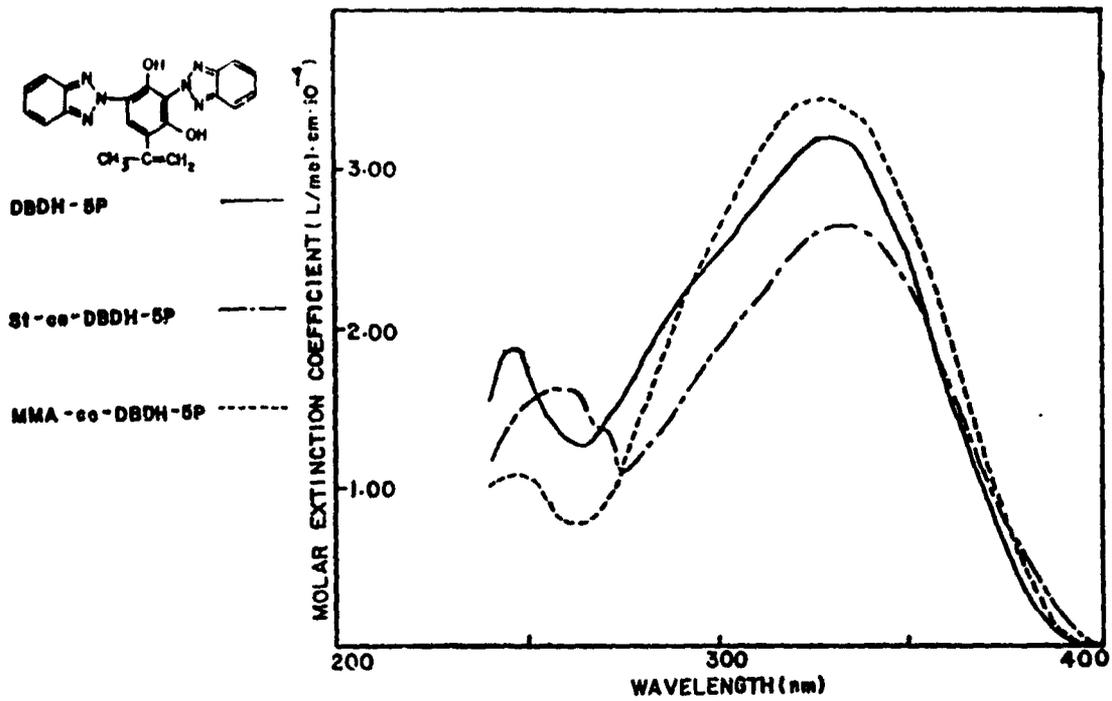
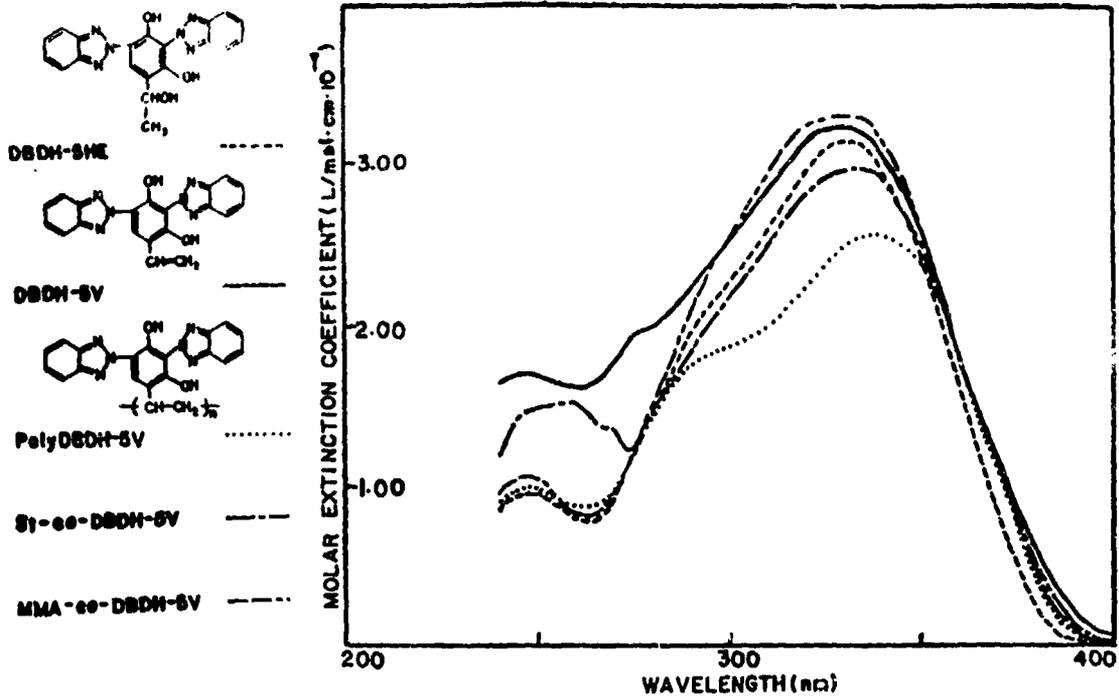


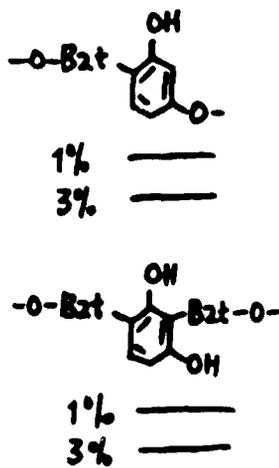
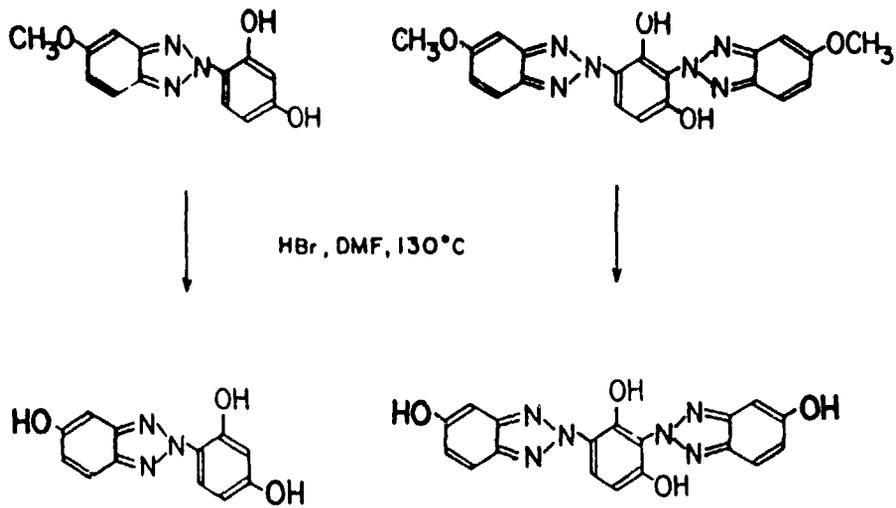
$R = \text{CH}_3, \text{H}$   
 $R' = \text{C}_6\text{H}_5, \text{COOCH}_3, \text{COOC}_2\text{H}_5$



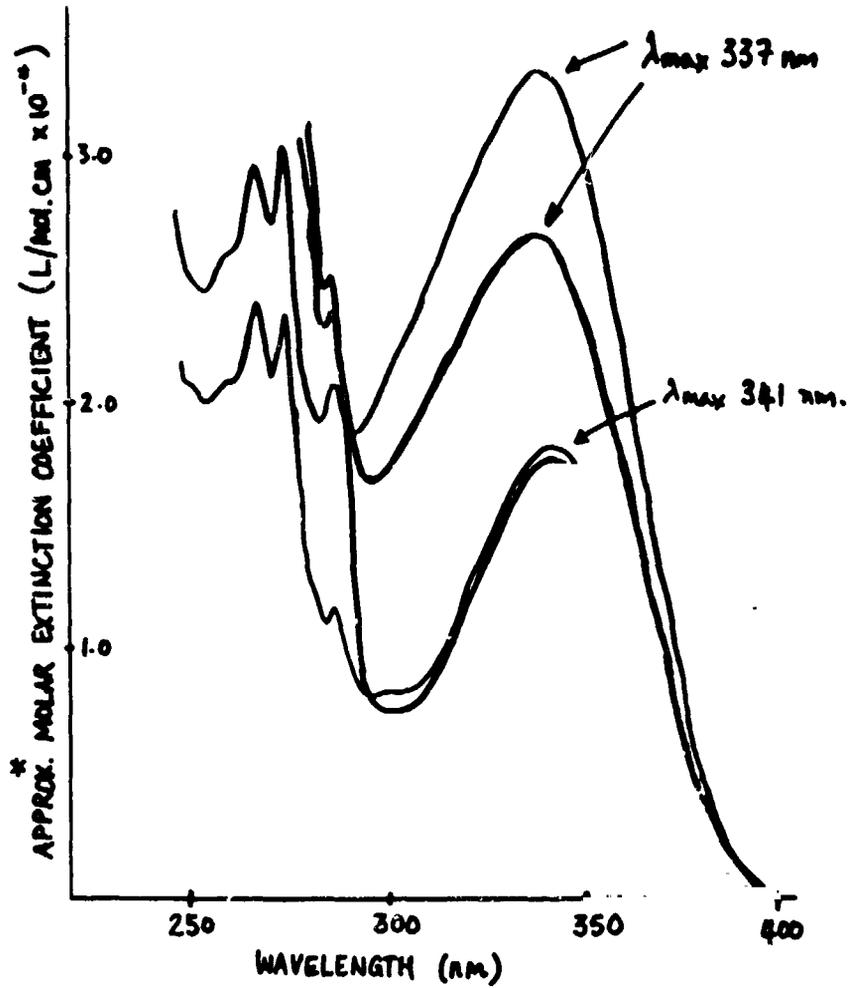


# RELIABILITY PHYSICS



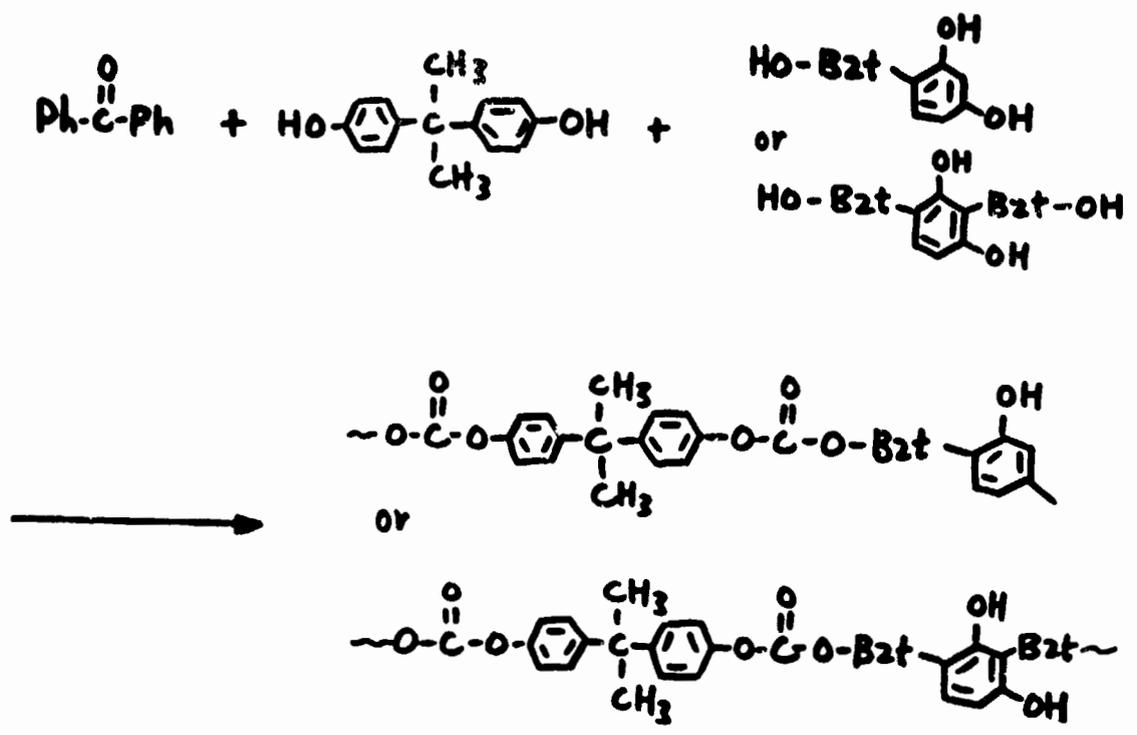


\* CALCULATED FROM FEED RATIO.

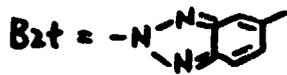
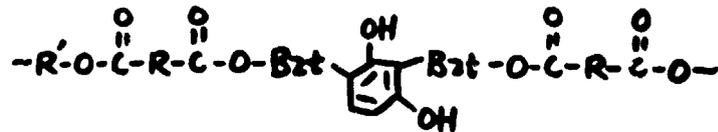
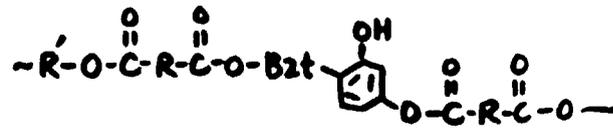
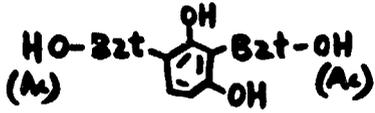
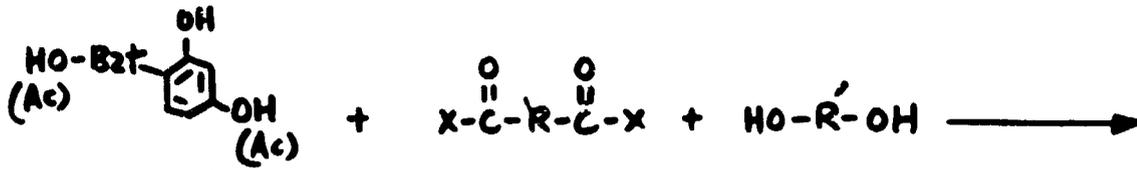


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Polycarbonates With UV Stabilizers



Polyesters With UV Stabilizers



R, R' = (CH<sub>2</sub>)<sub>n</sub>, , , Bisphenol A  
 X = Cl, -OCH<sub>3</sub>, -OPh